Estimate of the burden of acute gastroenteritis in the United States

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Background: In 1999, CDC estimated 211 million episodes of acute gastroenteritis (AGI) each year in the U.S., including 76 million episodes of foodborne illness. This estimate was based on the prevalence of diarrheal illness from the 1996 FoodNet Population Survey and the prevalence of vomiting and respiratory symptoms from earlier U.S. studies. We provide a revised estimate of AGI using data from more recent cycles of the FoodNet Population Survey.

Methods: FoodNet conducted two 12-month population-based telephone surveys in 2000 and 2002. AGI was defined as diarrheal illness (defined as ≥3 loose stools lasting >1 day or resulting in activity restriction) and/or vomiting in the absence of respiratory symptoms. Respondents reporting non-infectious causes of AGI were excluded.

Results: Of 29,717 respondents, 8.8% reported diarrheal illness and/or vomiting in the previous month. Of these, 39.1% reported concurrent respiratory symptoms. Therefore, the prevalence of AGI was 5.4% or 0.65 episodes per person-year (5.1% in 2000 and 5.6% in 2002). Overall, females reported a higher prevalence than males (6.1% versus 4.7%). The highest prevalence was in children <5 years (8.3%); the lowest in persons ≥65 years (2.6%). African Americans (4.2%) and Hispanics (4.1%) respondents reported a lower prevalence of AGI than whites (5.7%). The prevalence was higher in winter (5.8%) than summer (5.2%).

Conclusion: AGI remains an important cause illness in the U.S. A review of epidemiological studies is needed to determine the proportion of AGI transmitted through food and other routes.